State of California
The Resources Agency
DEPARTMENT OF FISH AND GAME
Habitat Conservation Division - Wildlife & Habitat Data Analysis Branch
California Natural Diversity Database

How to read ***RareFind* 3** Reports

The California Natural Diversity Database (CNDDB) is a computerized inventory of information on the location and condition of California's rare, threatened, endangered, and sensitive plants, animals, and natural communities. This information is available, for a fee from the Department of Fish and Game in the form of computer-generated reports and map overlays. ***RareFind 3*** **is a PC-based application of the CNDDB.**

DEFINITIONS

The individual species and communities in our inventory are referred to as "elements" in our reports. There are four categories of elements: Special Plants, Special Animals, Natural Communities, and Aquatic Communities. An "element occurrence" is a site which contains a population or stand of a sensitive element. Although the specific definition of an element occurrence differs among the various elements, with few exceptions, most occurrences can be identified by one of the following general definitions.

1. *Plants* - A population or group of populations found within 3 mile and not separated by significant habitat discontinuities.

2. *Animals With Limited Mobility* (most invertebrates, amphibians, reptiles, small mammals, and resident birds) - The location where a specimen was collected, or observed. This is assumed to represent a sample of a breeding population.

3. *Mobile Animals* - (migratory birds and larger mammals) - The location of breeding areas (including nesting territories, dens, and leks) or parts of the range of a mobile population. This may include roosts, overwintering areas, staging areas, etc.

4. *Mobile Aquatic Animals* - The location where a specimen was collected (taken to represent a sample of a population). It may include other sites upstream and downstream which are not separated by a major habitat discontinuity or a physical barrier.

5. *Terrestrial Natural Communities* - A documented location of a stand of vegetation or non-plant-dominated community element (e.g., alkali playa or desert dune). As with plants, nearby sites are included if they fall within 3 mile.

6. *Aquatic Natural Communities* - A documented location of contiguous habitat as defined by physical and biotic features.

Our computer reports consist of two parts. The Aheader@ contains general information for each taxon, such as the common and scientific names, federal and state listing status, habitat associations, etc. The Abody@ contains the particular information for each occurrence.

When citing the CNDDB as an information source, use the following:

California Natural Diversity Database
Wildlife & Habitat Data Analysis Branch
Department of Fish and Game
Date (insert date information purchased (Version Date), see lower left corner of printout)

Our computer reports present data as narratives, condensed phrases, abbreviations, and a variety of codes. This enables us to maximize the amount of information given for each record. Most of the codes and abbreviations are straightforward. This handout will explain our report format field by field. The information is the same for all Rarefind reports, with the exception of Asource codes;@ they are only given in the "Full Report with Sources" report.

- **SCIENTIFIC NAME** - The scientific (Latin) name of a plant or animal or the name of a natural community.
- **COMMON NAME** - The common name of a plant or animal. The field is blank for natural communities since it is the same as the scientific name.
- **ELEMENT CODE** - A ten-character code assigned to each element. It is used for data management purposes.
- **FEDERAL LEGAL STATUS:**

Endangered	Federally Listed Endangered
Threatened	Federally Listed Threatened
Proposed Endangered	Proposed for Federal Listing as Endangered
Proposed Threatened	Proposed for Federal Listing as Threatened
Candidate	Candidate for Federal Listing
None	No official federal listing status
Delisted	Delisted by the FWS

See *Federal Register* for legal definitions of federal status

- **CALIFORNIA LEGAL STATUS:**

Endangered	California Listed Endangered
Threatened	California Listed Threatened
Rare	California Listed Rare
Candidate	Candidate for state listing; these are protected from take, just like state-listed taxa
None	No official state listing status
Delisted	Delisted by the state

- **GLOBAL RANK** - The global rank is a reflection of the overall condition (rarity and endangerment) of an element throughout its range. Some global ranks for endemic species are assigned by the CNDDB biological staff following review of all available information; other global ranks are assigned by other states, other heritage programs or by Natureserve. For a complete explanation of this ranking, please refer to Appendix A.

- **STATE RANK** - The state rank is a reflection of the condition (rarity and endangerment) of an element within the state. The state rank is assigned by the CNDDB staff. See Appendix A.

- **OTHER LISTS:**

  CDFG - Indicates whether the species is a Department of Fish and Game Species of Special Concern (**terrestrial vertebrate animals only**).

  CNPS LIST - Indicates the California Native Plant Society (CNPS) list to which the taxon is assigned **(plants only)**.

  List 1A: Plants presumed extinct in California
  List 1B: Plants rare, threatened, or endangered in California and elsewhere
  List 2: Plants rare, threatened, or endangered in California, but more common elsewhere
  List 3: Plants about which we need more information - a review list
  List 4: Plants of limited distribution C a watch list

- **CNPS R-E-D CODE -** System of scoring plant taxa based on their Rarity (R), Endangerment (E), and Distribution (D) information.

  R (Rarity)
  1- Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time
  2- Occurrence confined to several populations or to one extended population
  3- Occurrence limited to one or a few highly restricted populations, or present in such small numbers that it is seldom reported

  E (Endangerment)
  1- Not endangered
  2- Endangered in a portion of its range
  3- Endangered throughout its range

  D (Distribution)
  1- More or less widespread outside of California
  2- Rare outside of California
  3- Endemic to California

- **HABITAT ASSOCIATIONS -** Information on the general habitat with which the element is associated, and where known, a description of the microhabitat.

- **OCCURRENCE NUMBER** – This number, together with the element code, uniquely identifies a particular location of a species or community. Occurrence numbers are assigned sequentially as the occurrence is mapped. The first location mapped for an element is OCC #1, the eighteenth location is OCC #18, etc. There may be gaps in the number sequence as occurrences are combined.

- **OCC RANK –** Occurrence rank, reflecting the condition and viability of a particular occurrence
  - A=Excellent
  - B=Good
  - C=Fair
  - D=Poor
  - X=None (extirpated)
  - U=Unknown

Value	Definition
A	Excellent - Population large and healthy for this taxon AND habitat in excellent condition. Habitat may show some minor disturbances such as the presence of some invasive species, dirt roads, etc. Population expected to be viable at this site for over 50 years, assuming nothing changes.
B	Good - Population in very good condition and fairly large for this taxon AND habitat in reasonably good condition. Some disturbances may exist including dirt roads, weed encroachment, nearby incompatible land uses, logging nearby, grazing, etc., but none so severe as to seriously impair species' ability to persist over at least the next 25 years.
C	Fair - Population small and/or potentially not very viable OR habitat in disturbed, fragmented or otherwise suboptimal condition. Disturbances are more severe and can include nearby development, heavy recreational use, ORV use and damage, heavy weed infestation, and more. Population not expected to persist in the long term but may persist for 10 years.
D	Poor - Population very small and/or non-viable. Habitat may be in good condition, but usually it is not and shows multiple disturbances and features of degradation. Population not expected to persist over 5 years.
X	Extirpated or Possibly Extirpated - Occurrence is no longer at this site
U	Unknown - Inadequate information exists to rank the occurrence

- **ORIGIN** - Indicates whether this occurrence is natural population, a transplant, a reintroduction, or a refugium.

- **PRESENCE** - Refers to the status of the taxon/stand at this site when it was last observed.

  a. Presumed Extant - The most common entry. An occurrence is presumed to be still in existence until evidence to the contrary is received by the CNDDB.

  b. Possibly Extirpated - Some evidence of habitat destruction or population extirpation has been received by the CNDDB for this site, but questions remain as to whether the element still exists here.

  c. Extirpated - Only used when the element has been searched for but not seen for many years or when the habitat at this site is destroyed.

- TREND - Indicates population trend at this site.
  a. Increasing
  b. Stable
  c. Decreasing
  d. Fluctuating

e. Unknown

- **MAIN SOURCE** - Primary source of information for this occurrence. Additional sources, if any, are listed in the report titled "Full Report with Sources."

- **MAP INDEX NUMBER** - The key number linking each feature on the map overlays with its specific text report.

- **DATE ELEMENT LAST OBSERVED** - The most recent date that an observer actually saw the element at this site according to information available to the CNDDB.

- **DATE SITE LAST VISITED** - The most recent date that an observer visited the site according to information available to the CNDDB.

- **DATE RECORD LAST UPDATED**: Last date CNDDB staff updated this record.

- **QUAD SUMMARY** - The name(s) of the United States Geological Survey (USGS) 72□ minute quadrangle(s) where the occurrence is mapped. The quad code is the 7-digit code which identifies the 72 minute USGS quadrangle on which the element occurrence is mapped. This code also appears on corresponding plot reports and map overlays. It is based on a 64-map grid in each 1E of latitude and longitude. The first two numbers indicate latitude; the 3rd-5th numbers indicate longitude and the final two numbers are a row-column designation, starting from the lower right hand corner of the grid.

- **COUNTIES** - The county (or counties) where the occurrence is mapped.

- **LATITUDE, LONGITUDE** - The latitude and longitude of the center point of the element occurrence location (determined by the computer).

- **UTM** - Universal Transverse Mercator coordinates. The zone and northing and easting coordinates of the center point of the element occurrence location (determined by the computer).

- **ACCURACY –** Accuracy Class represents spatial uncertainty in a relative way on a scale of one to ten (from most accurate to least accurate). The 10 classes are listed in the table below:

Value	Definition
80m	Specific bounded area with an 80 meter radius
specific area	Specific bounded area
nonspecific area	Non-specific bounded area
1/10mi	Circular feature with a 150 meter radius (1/10 mile)
1/5mi	Circular feature with a 300 meter radius (1/5 mile)
2/5mi	Circular feature with a 600 meter radius (2/5 mile)
3/5mi	Circular feature with a 1000 meter radius (3/5 mile)
4/5mi	Circular feature with a 1300 meter radius (4/5 mile)
1mi	Circular feature with a 1600 meter radius (1 mile)
5mi	Circular feature with a 8000 meter radius (5 miles)

- **ELEVATION** - The elevation in feet of the element occurrence.

- **T-R-S** - The Township, Range, and Section of the element occurrence location.

- **QTR** - The half section or quarter section if known.

- **MERIDIAN** - This field contains either "M,@ "H,@ or "S." These letters refer to Mt. Diablo, Humboldt, or San Bernardino baseline and meridians, respectively. These are necessary to indicate a unique township, range, and section coordinate.

- **LOCATION** - The specific location of the element occurrence.

- **LOCATION DETAIL, ECOLOGICAL, GENERAL, AND OWNERSHIP COMMENTS** - Site specific notes about an element's distribution, threats, habitat, associated species, population size, general comments, and ownership information.

- **SOURCE CODES** - An 8-character code assigned to any information which is used to map an occurrence. Includes: the first three letters of the contributor=s last name, year of the document (or year of field visit in the case of field survey forms), one character code for type of document (AF@ = field survey form, AR@ = report, AM@ = map, AU@ = personal communication or other type of correspondence, AB@ = book), and a two-character >tie-breaker= assigned and used internally by the CNDDB.

- **RAREFIND VERSION DATE** - Date data were generated at CNDDB.

- **REPORT DATE** - Date report was printed.

- **EXPIRATION DATE** – Date subscription and data expire.

APPENDIX A

ELEMENT RANKING

GLOBAL RANKING

The *global rank* (G-rank) is a reflection of the overall condition of an element throughout its global range. Ranks are assigned by the CNDDB biology staff following review of all available information. The table below provides a summarized look at what Global Ranks mean; in reality, more factors are reviewed than just numbers of element occurrences.

SPECIES OR NATURAL COMMUNITY LEVEL

G1 = Less than 6 viable element occurrences (EOs) OR less than 1,000 individuals OR less than 2,000 acres.
G2 = 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres.
G3 = 21-80 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres.
G4 = Apparently secure; this rank is clearly lower than G3 but factors exist to cause some concern; i.e., there is some threat, or somewhat narrow habitat.
G5 = Population or stand demonstrably secure to ineradicable due to being commonly found in the world.

SUBSPECIES LEVEL
Subspecies receive a **T-rank** attached to the G-rank. With the subspecies, the G-rank reflects the condition of the entire species, whereas the T-rank reflects the global situation of just the subspecies or variety. For example: *Chorizanthe robusta* var. *hartwegii*. This plant is ranked G2TI. The G-rank refers to the whole species range i.e., *Chorizanthe robusta.* The T-rank refers only to the global condition of var. *hartwegii*.

STATE RANKING

The *state rank* is assigned much the same way as the global rank, except state ranks in California often also contain a threat designation attached to the S-rank.

S1 = Less than 6 EOs OR less than 1,000 individuals OR less than 2,000 acres
S1.1 = very threatened
S1.2 = threatened
S1.3 = no current threats known
S2 = 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres
S2.1 = very threatened
S2.2 = threatened
S2.3 = no current threats known
S3 = 21-80 EOs or 3,000-10,000 individuals OR 10,000-50,000 acres
S3.1 = very threatened
S3.2 = threatened
S3.3 = no current threats known
S4 - Apparently secure within California; this rank is clearly lower than S3 but factors exist to cause some concern; i.e. there is some threat, or somewhat narrow habitat. NO THREAT RANK.

S5 - Demonstrably secure to ineradicable in California. NO THREAT RANK.

Notes:

1. Other considerations used when ranking a species or natural community include the pattern of distribution of the element on the landscape, fragmentation of the population/stands, and historical extent as compared to its modern range. It is important to take a bird's eye or aerial view when ranking sensitive elements rather than simply counting EOs.

2. Uncertainty about the rank of an element is expressed in two major ways:

   By expressing the rank as a range of values: e.g., S2S3 means the rank is somewhere between S2 and S3.

   By adding a ? to the rank: eg., S2? This represents more certainty than S2S3, but less than S2.

3. Other symbols

   GH All sites are historical; the element has not been seen for at least 20 years, but suitable habitat still exists (SH = All California sites are historical).
   GX All sites are **extirpated**; this element is extinct in the wild (SX = All California sites are extirpated).
   GXC Extinct in the wild; exists in cultivation.
   G1Q The element is very rare, but there is a taxonomic question associated with it.